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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/986,629	11/09/2001	Thierry Monteil	P07428US00/BAS	5942

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LARSON & TAYLOR, PLC
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ALEXANDRIA, VA 22314

EXAMINER

REYES, HECTOR M

ART UNIT	PAPER NUMBER
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1625

DATE MAILED: 08/07/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application N .

09/986,629

Applicant(s)

MONTEIL ET AL.

Examiner

Hector M Reyes

Art Unit

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-- The MAILING DATE of this communication appears in the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 to 16 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1 to 16 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☒ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

The present Office Action hereby vacates previous Office Action filed as Paper no. 2 base upon the fact that Applicant's Preliminary Amendment was not timely filed on the record at the time that the previous action was prepared.

Papers Entry

Examiner acknowledges Applicant's Preliminary Amendment, filed on June 4, 2003 as Paper no. 3. For clarification of the record, the Examiner wants to point out that the previous Office Action is hereby vacated because:

- Preliminary amendment is dated **November 9, 2001** but was not in the record at the time the previous Office Action was prepared
- Applicants have request the entrance of the said Preliminary Amendment and have provided evidence that the said preliminary Amendment was indeed dated on November 9, 2001
- Examiner agree to vacates previous Office Action and present hereby a new Office Action base upon Applicant's Preliminary Amendment.

Examiner also acknowledges Official copy of French patent 0014419 and Applicant's Information Disclosure Statement file with the original US instant Application.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

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The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

Claims 3 through 9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 4 recites the limitation "reacting the acid chloride of formula VII with said amino ester of formula VIII" in lines 6 and 7. On the other hand, claim 8 recites "amino ester is used in step A2 is introduced in the form of a salt of formula VIII a, in lines 1 and 2 of the said claim 8.

There is insufficient antecedent basis for the said limitations in the claim 3. Claim 4 and 8 depends of claim 3, wherein the said synthetic preparation of compound V is described by reacting carboxylic acid VI with amino ester VIII. The synthetic preparation described in claim 3 does not require the use of an acid chloride or of an ammonium salt in the said preparation. How the compound V is prepared? What are the starting materials required for the preparation of said acrylamide V? It is not clear which are the specific reactants and reaction conditions required to prepared the acrylamide derivative identified by formula (V). Is the free amine used as a reactant or it is its corresponding salt derivative? Is the free acrylic acid identified by formula (VI) used as a reactant or it is required a further step to activate the said carboxylic acid to a more reactive synthon such as an acid chloride?

Would the condensation reaction in the preparation of Compound V works when the no activated species (free carboxylic acid and free amine) are use or it is essential that the activated forms be prepared?

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

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Claims 1 to 16 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Greenberg et al, US patent 4,401,667 or US patent 4,474,799.

Greenberg discloses the thio carboxamide derivatives, described as formula (1), see col. 1, 677 and 799. The said derivatives are prepared from protected thio carboxamide, having formula (IV), as described in col. 3, 677 and 799. Interestingly, Greenberg discloses that the said compound (IV) is prepared by the following sequence of steps:

- Reacting amino acid of formula II or an ester thereof with an acrylic acid or its chemical equivalent of formula (V) in order to obtain the alpha substituted acrylamide (VI).

Greenberg indicates that preferably, the acrylic acid of formula (V) is converted to an activated form such as the corresponding acid chloride, which it is obtained by reacting the corresponding acid with thionyl chloride (see for instance '677, col. 3, lines 41 to 43)

- Once the said alpha substituted acrylamide (VI) is prepared, it is reacted with the thio derivative VII to yield compound derivatives of formula (IV).

Greenberg points out that the asymmetric carbon in the amino acid portion is in the L-configuration while the asymmetric carbon in the mercapalkanoyl side chain can be in the D or L or D, L configuration.

Greenberg does not specifically prepared compounds outlined in claims 15 and 16.

However:

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- Variable R4, corresponding to variable R3 in the cited references is defined as Lower alkanoyl of 1 to 4 carbons, preferably acetyl or benzoyl
- Variable group CH₂-R1 corresponding to R1 in the references is defined as straight or branched chain alkyl of 1 to 4 carbons, benzyl or phenetyl
- R2 variable group correspond to R2 in the references and is defined as straight or branched chain alkyl of 1 to 4 carbons atom, among other derivatives and
- R3, is defined as hydrogen atom see formula (IV) or an ester derivative used as an intermediate, see for example, col. 3, lines 34 and 35, '677).

Therefore, a person skill in the art would use the method described by Greenberg et al in order to prepare the compounds described in claims 15 and 16 as a convenient method because of the said compounds are analogs of the compounds already prepared by Greenberg by the said method.

CONCLUSION

Any inquiry concerning this communication should be directed to Hector M. Reyes whose telephone number is (703) 605-1153. The examiner can normally be reached on Monday to Friday from 8 am to 4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner 's supervisor, Allan Rotman, which telephone number, is (703) 308-4698. The fax phone number for the organization where this application or proceeding is assigned is (703)

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308-4556 or for regular communication and (703) 308-4242 for After Final communications.

Any inquiry of a general nature or relating to the status of the application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1235.

Héctor M. Reyes PhD, JD

August 1, 2003



ALAN L. ROTMAN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1600